## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/508,343
Source:	P4710
Date Processed by STIC:	3//3/o <b>5</b>

## ENTERED



PCT

RAW SEQUENCE LISTING DATE: 03/13/2005
PATENT APPLICATION: US/10/508,343 TIME: 11:58:40

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

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3 <110> APPLICANT: Evotec NeuroSciences GmbH
     5 <120> TITLE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USE OF HUMAN MAGUIN PROTEINS
             AND NUCLEIC ACIDS FOR NEURODEGENERATIVE DISEASES
     8 <130> FILE REFERENCE: 020791ep ME/BM
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/508,343
C--> 11 <141> CURRENT FILING DATE: 2004-09-20
    13 <160> NUMBER OF SEQ ID NOS: 24
    15 <170> SOFTWARE: PatentIn Ver. 2.1
    17 <210> SEQ ID NO: 1
    18 <211> LENGTH: 1034
    19 <212> TYPE: PRT
    20 <213> ORGANISM: Homo sapiens
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                         5
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    29 Asn Phe Glu Arg Glu Lys Ile Ser Gly Asp Gln Leu Leu Arg Ile Thr
    32 His Gln Glu Leu Glu Asp Leu Gly Val Ser Arg Ile Gly His Gln Glu
    35 Leu Ile Leu Glu Ala Val Asp Leu Leu Cys Ala Leu Asn Tyr Gly Leu
                            70
    38 Glu Thr Glu Asn Leu Lys Thr Leu Ser His Lys Leu Asn Ala Ser Ala
    41 Lys Asn Leu Gln Asn Phe Ile Thr Gly Arg Arg Ser Gly His Tyr
                                        105
                   100
    44 Asp Gly Arg Thr Ser Arg Lys Leu Pro Asn Asp Phe Leu Thr Ser Val
                                    120
    47 Val Asp Leu Ile Gly Ala Ala Lys Ser Leu Leu Ala Trp Leu Asp Arg
                                135
    50 Ser Pro Phe Ala Ala Val Thr Asp Tyr Ser Val Thr Arg Asn Asn Val
                           150
                                                155
    53 Ile Gln Leu Cys Leu Glu Leu Thr Thr Ile Val Gln Gln Asp Cys Thr
                                            170
    56 Val Tyr Glu Thr Glu Asn Lys Ile Leu His Val Cys Lys Thr Leu Ser
                   180
                                        185
                                                            190
    59 Gly Val Cys Asp His Ile Ile Ser Leu Ser Ser Asp Pro Leu Val Ser
               195
                                    200
    62 Gln Ser Ala His Leu Glu Val Ile Gln Leu Ala Asn Ile Lys Pro Ser
                               215
    65 Glu Gly Leu Gly Met Tyr Ile Lys Ser Thr Tyr Asp Gly Leu His Val
                           230
    66 225
                                                235
                                                                    240
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Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

68 Ile Thr Gly Thr Thr Glu Asn Ser Pro Ala Asp Arg Cys Lys Lys Ile 245 250 71 His Ala Gly Asp Glu Val Ile Gln Val Asn His Gln Thr Val Val Gly 260 265 74 Trp Gln Leu Lys Asn Leu Val Asn Ala Leu Arg Glu Asp Pro Ser Gly 280 77 Val Ile Leu Thr Leu Lys Lys Arg Pro Gln Ser Met Leu Thr Ser Ala 290 295 300 80 Pro Ala Leu Leu Lys Asn Met Arg Trp Lys Pro Leu Ala Leu Gln Pro 310 83 Leu Ile Pro Arg Ser Pro Thr Ser Ser Val Ala Thr Pro Ser Ser Thr 325 330 86 Ile Ser Thr Pro Thr Lys Arg Asp Ser Ser Ala Leu Gln Asp Leu Tyr 340 345 89 Ile Pro Pro Pro Pro Ala Glu Pro Tyr Ile Pro Arg Asp Glu Lys Gly 360 92 Asn Leu Pro Cys Glu Asp Leu Arg Gly His Met Val Gly Lys Pro Val 375 95 His Lys Gly Ser Glu Ser Pro Asn Ser Phe Leu Asp Gln Glu Tyr Arg 390 395 98 Lys Arg Phe Asn Ile Val Glu Glu Asp Thr Val Leu Tyr Cys Tyr Glu 405 410 101 Tyr Glu Lys Gly Arg Ser Ser Ser Gln Gly Arg Arg Glu Ser Thr Pro 420 425 104 Thr Tyr Gly Lys Leu Arg Pro Ile Ser Met Pro Val Glu Tyr Asn Trp 435 440 107 Val Gly Asp Tyr Glu Asp Pro Asn Lys Met Lys Arg Asp Ser Arg Arg 455 110 Glu Asn Ser Leu Leu Arg Tyr Met Ser Asn Glu Lys Ile Ala Gln Glu 470 475 113 Glu Tyr Met Phe Gln Arg Asn Ser Lys Lys Asp Thr Gly Lys Lys Ser 485 490 116 Lys Lys Lys Gly Asp Lys Ser Asn Ser Pro Thr His Tyr Ser Leu Leu 500 505 119 Pro Ser Leu Gln Met Asp Ala Leu Arg Gln Asp Ile Met Gly Thr Pro 520 122 Val Pro Glu Thr Thr Leu Tyr His Thr Phe Gln Gln Ser Ser Leu Gln 535 540 125 His Lys Ser Lys Lys Lys Asn Lys Gly Pro Ile Ala Gly Lys Ser Lys 550 555 128 Arg Arg Ile Ser Cys Lys Asp Leu Gly Arg Gly Asp Cys Glu Gly Trp 565 570 131 Leu Trp Lys Lys Lys Asp Ala Lys Ser Tyr Phe Ser Gln Lys Trp Lys 580 585 134 Lys Tyr Trp Phe Val Leu Lys Asp Ala Ser Leu Tyr Trp Tyr Ile Asn 595 600 605 137 Glu Glu Asp Glu Lys Ala Glu Gly Phe Ile Ser Leu Pro Glu Phe Lys 615 140 Ile Asp Arg Ala Ser Glu Cys Arg Lys Lys Tyr Ala Phe Lys Ala Cys

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Output Set: N:\CRF4\03132005\J508343.raw

141	625					630					635					640
		Pro	Lvs	Ile	Lvs		Phe	Tvr	Phe	Ala		Glu	His	Leu	Asp	
144			•		645			1		650					655	•
146	Met	Asn	Arq	Trp	Leu	Asn	Arg	Ile	Asn	Met	Leu	Thr	Ala	Gly	Tyr	Ala
147			_	660					665					670	_	
149	Glu	Arg	Glu	Arg	Ile	Lys	Gln	Glu	Gln	Asp	Tyr	Trp	Ser	Glu	Ser	Asp
150		_	675	_		_		680		_	_	_	685			_
152	Lys	Glu	Glu	Ala	Asp	Thr	Pro	Ser	Thr	Pro	Lys	Gln	Asp	Ser	Pro	Pro
153	_	690			_		695					700	_			
155	Pro	Pro	Tyr	Asp	Thr	Tyr	Pro	Arg	Pro	Pro	Ser	Met	Ser	Cys	Ala	Ser
156	705	-		-	-	710					715					720
158	Pro	Tyr	Val	Glu	Ala	Lys	His	Ser	Arg	Leu	Ser	Ser	Thr	Glu	Thr	Ser
159					725					730					735	
161	Gln	Ser	Gln	Ser	Ser	His	Glu	Glu	Phe	Arg	Gln	Glu	Val	Thr	Gly	Ser
162				740					745					750		
164	Ser	Ala	Val	Ser	Pro	Ile	Arg	Lys	Thr	Ala	Ser	Gln	Arg	Arg	Ser	Trp
165			755					760					765			
167	Gln	Asp	Leu	Ile	Glu	Thr	Pro	Leu	Thr	Ser	Ser	Gly	Leu	His	Tyr	Leu
168		770					775					780				
170	Gln	Thr	Leu	Pro	Leu	Glu	Asp	Ser	Val	Phe	Ser	Asp	Ser	Ala	Ala	Ile
	785					790					795					800
173	Ser	Pro	Glu	His	Arg	Arg	Gln	Ser	Thr		Pro	Thr	Gln	Lys	_	His
174		_			805	_				810	_	_		_	815	
176	Leu	Gln	Asp		Tyr	Gly	Pro	Tyr		Leu	Ala	Glu	Ser		Arg	Met
177		_		820				_	825					830		
	Gln	Val		Asn	Gly	Asn	Gly	_	Lys	Pro	Arg	Ser		Thr	Leu	Pro.
180	_	_	835	~-7	_,	_		840	_	_	_	_ •	845		_	
	Arg	_	Ser	GIY	Phe	Asn	His	Cys	Cys	Leu	Asn		Pro	Val	Ser	Ala
183	<b>~</b>	850	D	<b>~1</b>	7	<b>3</b>	855	<b>~1</b>	D	D	<b>01</b>	860	<b>~1</b>	<b>01</b>	<b>a</b> 1	G1
	-	Asp	Pro	GIN	Asp	_	Val	GIN	Pro	Pro		vaı	GIU	GIU	GIU	
	865	C1,,	C1,,	C1,,	C1.,	870	Gly	C111	ח ד ת	71-	875	C1,,	7 cn	Tla	C1.	880
189	Giu	Gru	GIU	Giu	885	Giu	GIY	GIU	ALA	890	GIY	GIU	ASII	116	895	Gru
	Taye	Ser	Glu	Ser		Glu	Glu	Lvs	T.e.i		Δsn	Ser	T.e.ii	Gln		T.e.ii
192	цуз	SCI	GIU	900	nr 9	Giu	Giu	цуз	905	Gry	rop	DCI	пец	910	rop	Leu
	Tvr	Ara	Ala		Glu	Gln	Ala	Ser		Ser	Pro	Len	Glv		His	Ara
195	-1-		915			<b></b>		920					925	014		
	Ile	Ser		Lvs	Met	Glu	Tyr		Leu	Ser	Phe	Ile		Ara	Cvs	Asn
198		930		-1-			935	-1-				940	-1-	5	0,10	
	Asp		Val	Met	Asn	Glu	Lys	Leu	His	Ara	Leu		Ile	Leu	Lvs	Ser
	945					950				5	955	5			2	960
		Leu	Lvs	Ala	Ara		Gly	Glu	Val	Ala		Ile	Asp	Lvs	Val	
204					965		4			970					975	
	qzA	Asn	Pro	Asp		Thr	Ser	Lys	Glu		Gln	Gln	Trp	Lys		Met
207				980				-	985	_			-	990		_
	Tyr	Leu	qaA		Phe	Leu	Asp	Ile		Gln	Asn	Thr	Thr		Asn	Asp
210	-		995					1000	-				1005			-
	Pro	Leu	Ser	Ile	Ser	Ser	Glu		Asp	Val	Ile			Ser	Leu	Ala
213		L010					1015		-			L020				

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

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Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

288 289	Ser	Gly	Val	Ile 340	Leu	Thr	Leu	Lys	Lys 345	Arg	Pro	Gln	Ser	Met 350	Leu	Thr
291 292	Ser	Ala	Pro 355	Ala	Leu	Leu	Lys	Asn 360	Met	Arg	Trp	Lys	Pro 365	Leu	Ala	Leu
294 295	Gln	Pro 370	Leu	Ile	Pro	Arg	Ser 375	Pro	Thr	Ser	Ser	Val 380	Ala	Thr	Pro	Ser
297	Ser 385		Ile	Ser	Thr	Pro 390		Lys	Arg	Asp	Ser		Ala	Leu	Gln	Asp 400
300		Tyr	Ile				Pro	Ala	Glu			Ile	Pro	Arg	_	
301	Lvs	Glv	Asn	Leu	405 Pro	Cvs	Glu	Asp	Leu	410 Ara	Glv	His	Met	Val	415 Glv	Lvs
304				420					425	•				430	•	
306 307	Pro	Val	His	Lys	Gly	Ser	Glu	Ser	Pro	Asn	Ser	Phe	Leu 445	Asp	Gln	Glu
	Tvr	Ara		Ara	Phe	Asn	Tle	Val	Glu	G111	Asp	Thr		Leu	Tvr	Cvs
310	-1-	450		9			455	• • • •	014	Olu	p	460	• • • •	Dou	-1-	O <sub>I</sub> S
		Glu	Tyr	Glu	Lys		Arg	Ser	Ser	Ser		Gly	Arg	Arg	Glu	
	465	_				470		_	_		475		_			480
315	Thr	Pro	Thr	Tyr	Gly 485	Lys	Leu	Arg	Pro	11e 490	Ser	Met	Pro	Val	G1u 495	Tyr
	Asn	Trp	Val	Glv	asp	Tvr	Glu	Asp	Pro		Lvs	Met	Lys	Arq	Asp	Ser
319		-		500	-	•		-	505		•		•	510	-	
	Arg	Arg		Asn	Ser	Leu	Leu	Arg	Tyr	Met	Ser	Asn		Lys	Ile	Ala
322			515	_		_,		520	_	_	_	_	525	_,		_
	GIn		GIu	Tyr	Met	Phe		Arg	Asn	Ser	Lys	_	Asp	Thr	GLY	Lys
325	T	530	T	T	T	C1	535	T	Com	7 an	Com	540 Dro	Πp~	Uia	Пт. гъс	Cox
	545	ser	тув	гуя	гуя	550	Asp	Lys	ser	ASII	555	PIO	1111	птр	ıyı	560
		Leu	Pro	Ser	Leu		Met	Asp	Ala	Leu		Gln	Asp	Ile	Met	
331					565					570					575	2
333	Thr	Pro	Val	Pro	Glu	Thr	Thr	Leu	Tyr	His	Thr	Phe	Gln	Gln	Ser	Ser
334				580					585					590		
	Leu	Gln		Lys	Ser	Lys	Lys	Lys	Asn	Lys	Gly	Pro		Ala	Gly	Lys
337	Com	T	595	7 ~~	T1.	Com	C	600 Lys	7	T 011	C1	7 ~~	605	7 ~~	C	C1.,
340	ser	610	Arg	Arg	116	per	615	цуѕ	Asp	пец	GIY	620	GIY	Asp	Cys	GIU
	Gly		Leu	Trp	Lys	Lys		Asp	Ala	Lys	Ser		Phe	Ser	Gln	Lys
	625	•		-	-	630	•	-		•	635	•				640
345	Trp	Lys	Lys	Tyr	Trp	Phe	Val	Leu	Lys	Asp	Ala	Ser	Leu	Tyr	$\mathtt{Trp}$	Tyr
346					645					650					655	
348	Ile	Asn	Glu		Asp	Glu	Lys	Ala	Glu	Gly	Phe	Ile	Ser	Leu	Pro	Glu
349				660		_			665					670		
	Phe	Lys		Asp	Arg	Ala	Ser	Glu	Cys	Arg	Lys	Lys		Ala	Phe	Lys
352		~	675	D-	<b>.</b>		<b>.</b> .	680	<b>51</b>	m.	<b>5</b> 1		685	~3	***	<b>.</b>
	Ala	_	Hls	Pro	гла	тте		Ser	Pne	туr	Pne		АТа	GIu	HIS	ьeu
355	7 c~	690	Mo+	7 ~~	7~~	Tr	695 Lev	7 ~~	7/~~	TIA	λ ~~	700 Mot	Lou	Th∽	~ ות	G1++
	705	Asp	met	ASII	Ard	710	ьец	Asn	νιd	116	715	met	ьец	TIIL	MIG	720
		Ala	Glu	Ara	Glu		Ile	Lys	Gln	Glu		Asp	Tvr	Tro	Ser	
	_ 1 _															

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/508,343

DATE: 03/13/2005 TIME: 11:58:41

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date